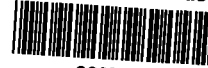




EPA Region 5 Records Ctr.



229702

November 10, 2004

Mr. Nabil S. Fayoumi  
U. S. EPA - Region 5  
77 West Jackson Boulevard (SR-6J)  
Chicago, Illinois 60604-3590

**Re: Sauget Area 2 Site – October 3, 2002 Unilateral Administrative Order  
(UAO) Groundwater Operable Unit  
Monthly Report; October 1 - October 31, 2004 Reporting Period**

Dear Nabil:

Attached is the Monthly Report for the Sauget Area 2 Site October 3, 2002 Unilateral Administrative Order (UAO) - Groundwater Operable Unit. This submittal is in fulfillment of the monthly reporting requirements of the UAO, Section XII, paragraph 62, Progress Reports. This report is for the period October 1 – October 31, 2004.

Sincerely,

Steven D. Smith  
Project Coordinator

cc: Ken Bardo, - U. S. EPA  
Mayor Sauget - Sauget, IL  
Sandra Bron – IEPA  
Mike Coffey - USFWS  
Village of Sauget – c/o P. H. Weis & Associates (Attn: Brian Nelson)  
Mayor Frank Bergman – Cahokia  
L. Glen Kurowski - Monsanto  
Cathleen Bumb – Solutia  
Linda Tape - Husch & Eppenberger  
Richard Williams – Solutia

## **Sauget Area 2 Site - Sauget, Illinois**

### **October 3, 2002 UAO – Groundwater Operable Unit**

#### **Status Report**

**Date of Report:** November 10, 2004  
**Period Covered:** October 1 - October 31, 2004

#### **Agency Actions / Communications**

*In an e-mail message dated June 19, 2003, U. S. EPA requested the submission of revised versions of the Focused Feasibility Study, the Remedial Design Work Plan, and the Pre-Final (95%) Remedial Design. The revisions were required to allow the use of a slurry wall rather than jet grouting for construction of the barrier wall. The revised documents were submitted on July 3, 2003. The ESD was issued by US EPA on July 30, 2003. The Final Design Submittals were approved by EPA on October 16, 2003.*

#### **Work Performed During the Reporting Period**

##### **Slurry Wall**

- Removal of the remnant wedge at Station 32+60 was completed on October 2<sup>nd</sup>. Following removal of the wedge, the clam bucket was opened and lowered to full depth under the utility encasement to demonstrate the wedge had been successfully removed. As an additional demonstration that the trench had been cleaned to full depth, a sixteen foot long horizontal steel H-beam was lowered to full depth at the location of the wedge removal.
- Total backfill placed through October 30, 2004 = 433,426 sq ft. This represents 97.6 percent of the total backfill required to complete the wall, an increase of 20 percent over the previous month.
- Cleaning and backfilling of the trench continued through the month of October, with approximately 11,000 cubic yards of new backfill being placed during the month. Almost all of this was placed along the northern leg.
- Slurry de-sanding continued during the month. The sand content of the deep slurry in the trench averaged approximately 20 percent during the month.

- Slurry continued to be pumped from the trench to a containment cell on top of the landfill. Stabilization of the slurry by the addition of cement (nominally 8 percent by weight) began during the reporting period and will continue into November.
- Site cleanup and final grading continued in the southern third of the site. Excavation of the upper three feet of backfill along the wall continued, in order to permit construction of the cap. The cap was constructed between Station 5+00 (the end of the south leg of the wall) and approximately Station 14+00.
- The US EPA approved a proposed topsoil source for use on the project, on condition that two additional material samples are analyzed for TCL and TAL compounds during placement.
- All QA/QC test results received during the reporting period satisfied the project specifications and guidelines.

### **Groundwater Treatment**

- For the first ten days of the month, pumping rates for the groundwater extraction system were set at the maximum system capacity (approximately 2175 gpm). On October 11<sup>th</sup>, the pumping rates were reset to respond in accordance with the lookup tables provided in the ROD and the final design for the “no-wall” condition. At the US EPA’s request, the flow rates had been increased in the second half of September to the maximum pump capacities in order to establish that the system has the capacity to reduce the piezometric heads inside the wall enough to match the heads outside the wall during low river stage conditions. Subsequent to the test, it was agreed that the system will be operated for an interim period of time in such a way as to maintain the average water levels inside the wall equal to, or lower, than the river level. This provides an opportunity to complete piezometer maintenance and re-calibration. A meeting is scheduled on November 16th, 2004 to discuss pumping operations.
- Well EW-3 was unable to maintain a constant flow in excess of about 350 gpm, indicating impending pump failure. This pump was replaced on October 1<sup>st</sup>. The pump and motor assembly in well EW-2 was also replaced on October 4<sup>th</sup> as a preventive maintenance measure.
- The system was down for about 4 hours on October 3<sup>rd</sup> because of an area-wide power failure.
- Recalibration and resurveying of all the piezometers was carried out during the month. The sensors in all of the piezometer installations were raised to elevation 360 feet, with the exception of the PZ-1 pair. These were raised to elevation 365 feet to place the tips above bentonite slurry that had entered the riser casings.
- Concerns have arisen about the reliability of the river level elevations provided by the American Bottoms Regional Treatment Plant's bubbler gauge. Discussions are being held with the Corps of Engineers to permit use of the gauge mounted on the Eads Bridge immediately upstream of the site.

- A report is being prepared on the calibration efforts for submission to the US EPA on November 9<sup>th</sup>. That report will also provide recommendations for the operation of the groundwater control system.
- Effluent pumping data for each well are attached.
- Piezometer and pumping data are being forwarded to the Agencies weekly.

### **Schedule**

A new construction schedule was submitted in April showing backfill completion by the middle of November. Since that time, working hours at the site have increased to two 11-hour shifts and a second hydraulic clamshell was put into service. These changes would have resulted in the trench backfill being completed approximately two weeks ahead of schedule. However, the time lost in removing the remnant wedge was approximately 1.5 weeks. In consequence, it is estimated that the trench backfill will be completed as originally schedule, in the middle of November.

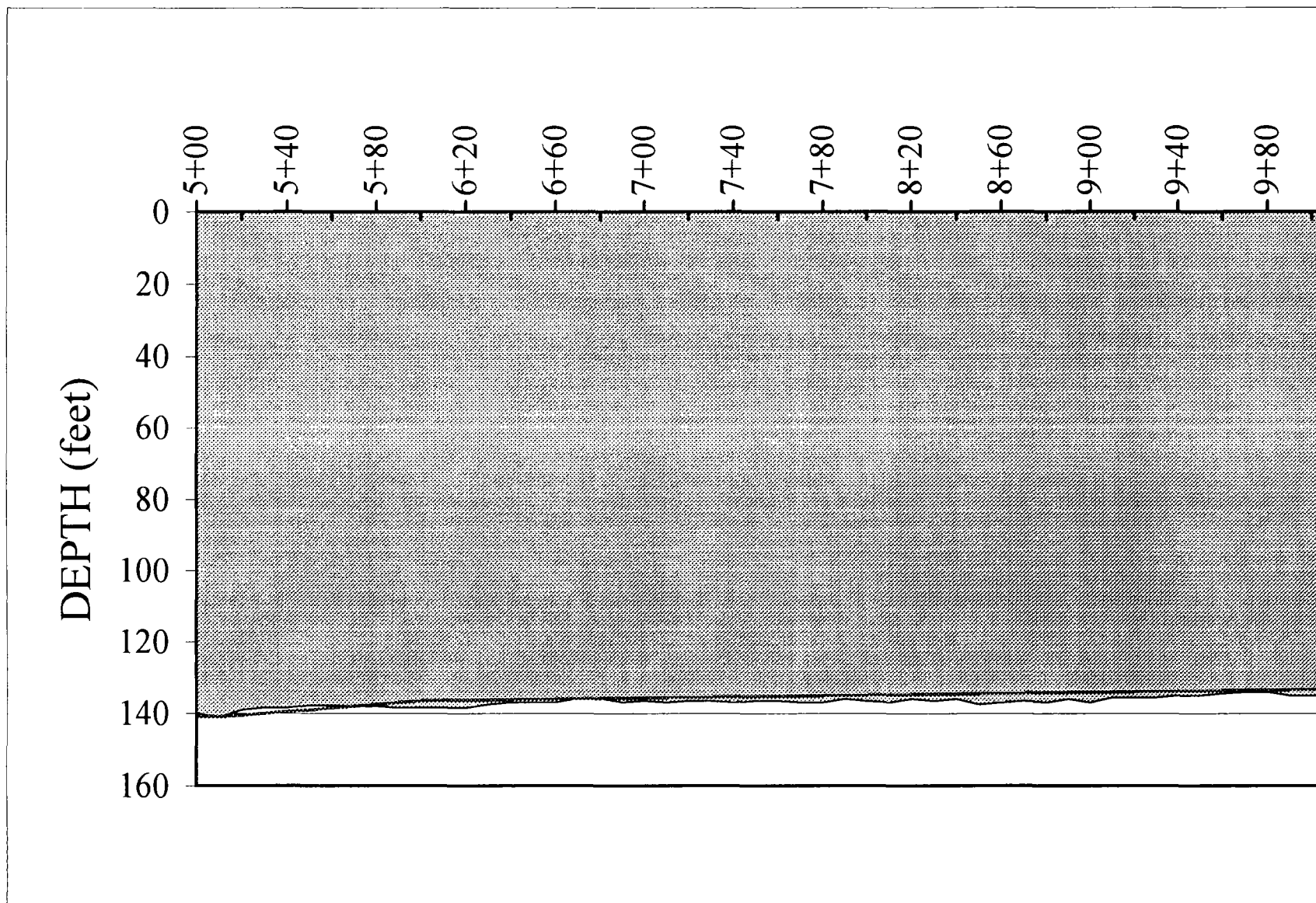
### **Submittals in October**

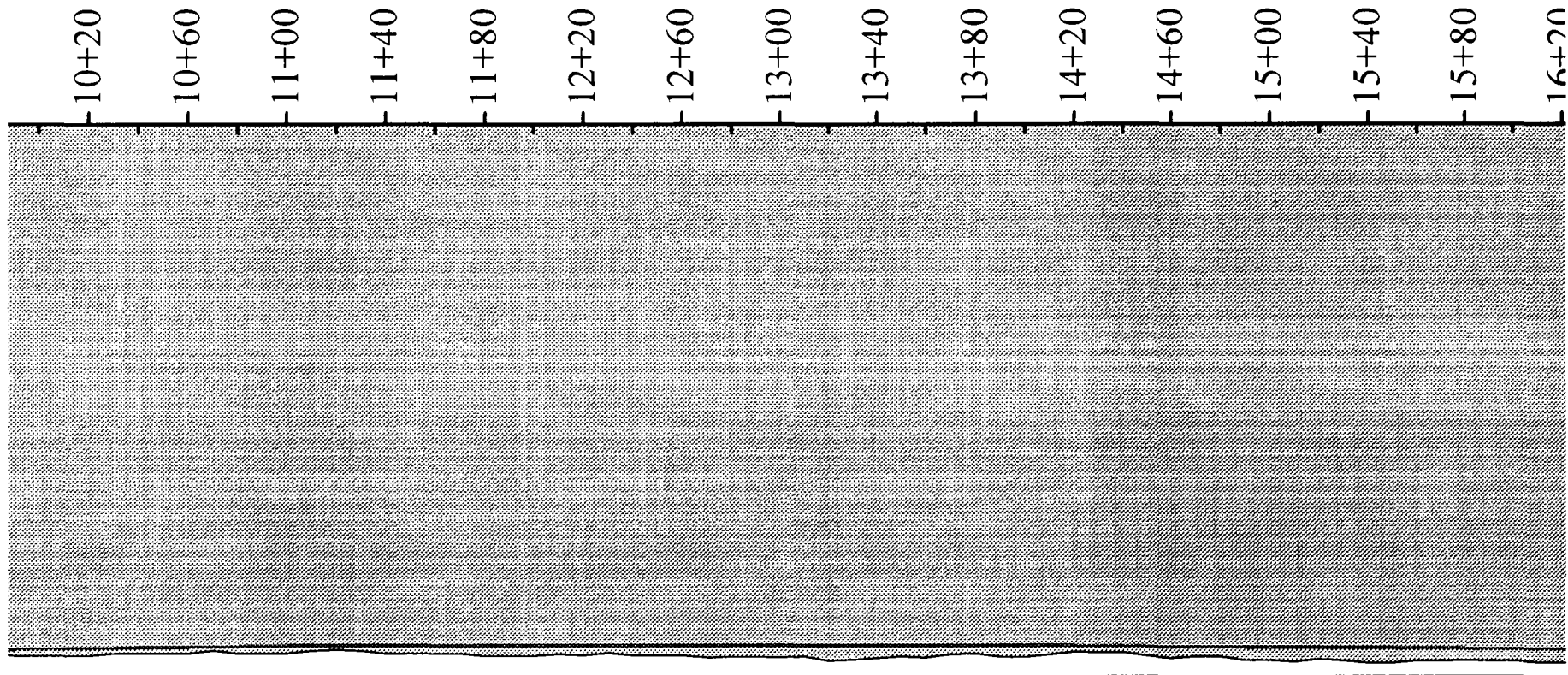
There were no submittals in October.

### **Work Scheduled for Next Reporting Period**

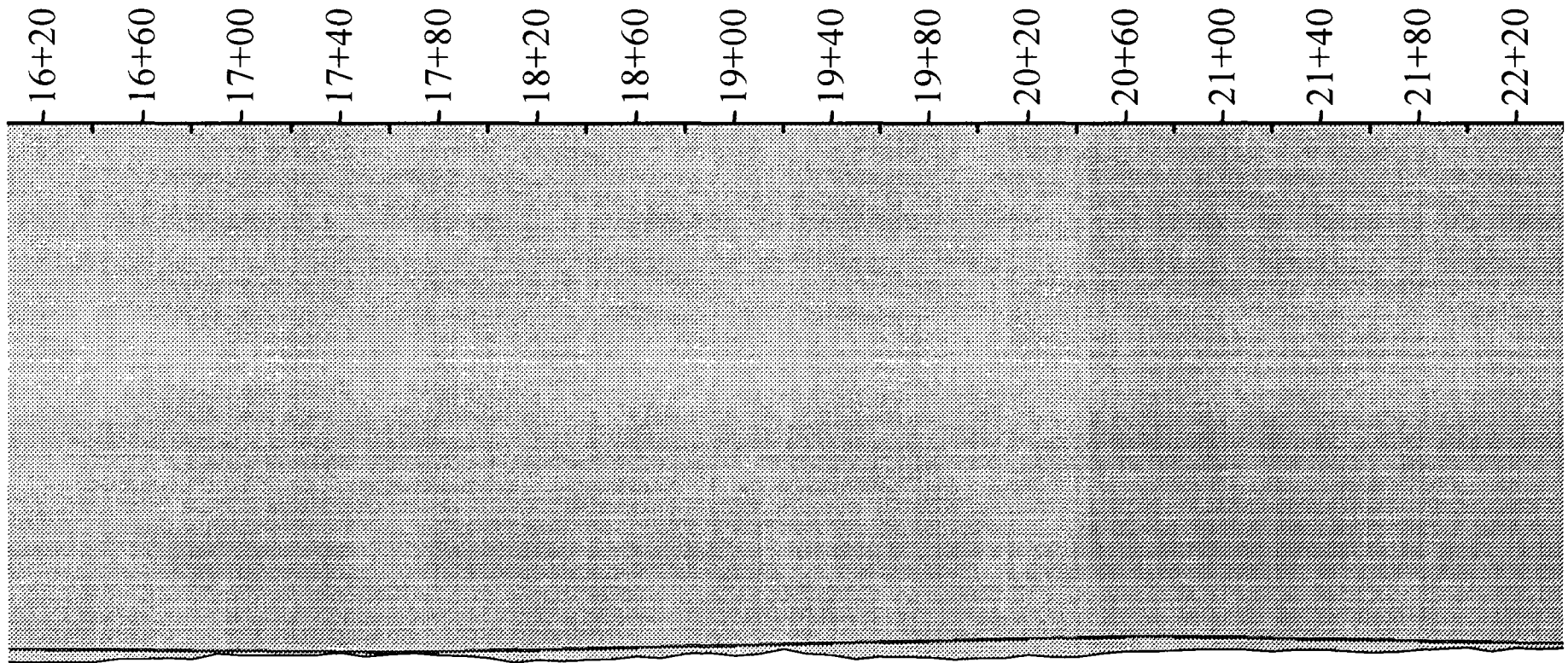
- Continue pumping and treating groundwater based on river levels. System control will be based on river levels, as specified in the ROD and the ESD. Flow rates will be controlled such that the water levels inside the barrier wall will be less than, or equal to, the river level.
- Continue cleaning and backfilling the trench.
- Continue final site cleanup.
- Continue constructing the cap on the slurry wall.
- Continue solidifying excess slurry in the containment cell on top of Site R.
- Submit report on the calibration and operation of the groundwater control system
- A meeting will be held on November 16th, 2004 at the site to discuss pumping operations.

## **SLURRY WALL PROFILE**



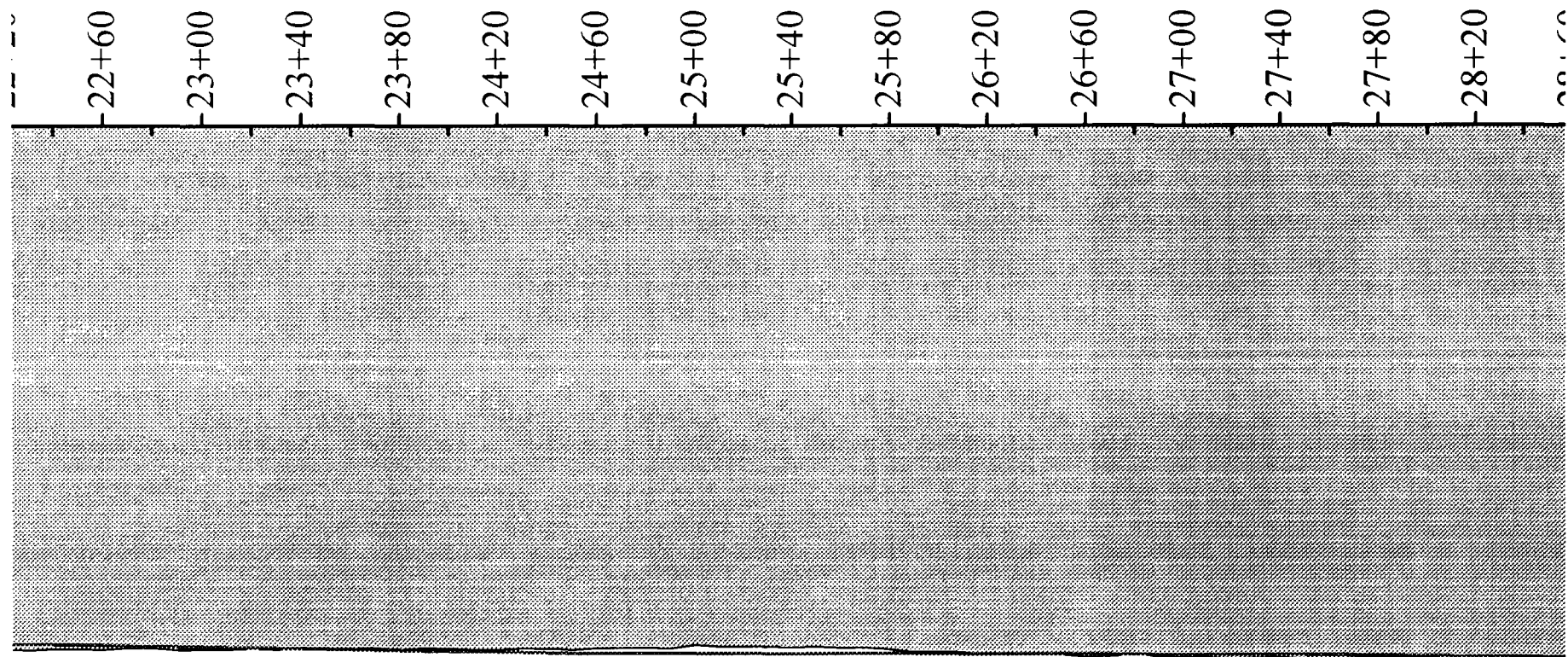


## SURVEY STATIONS

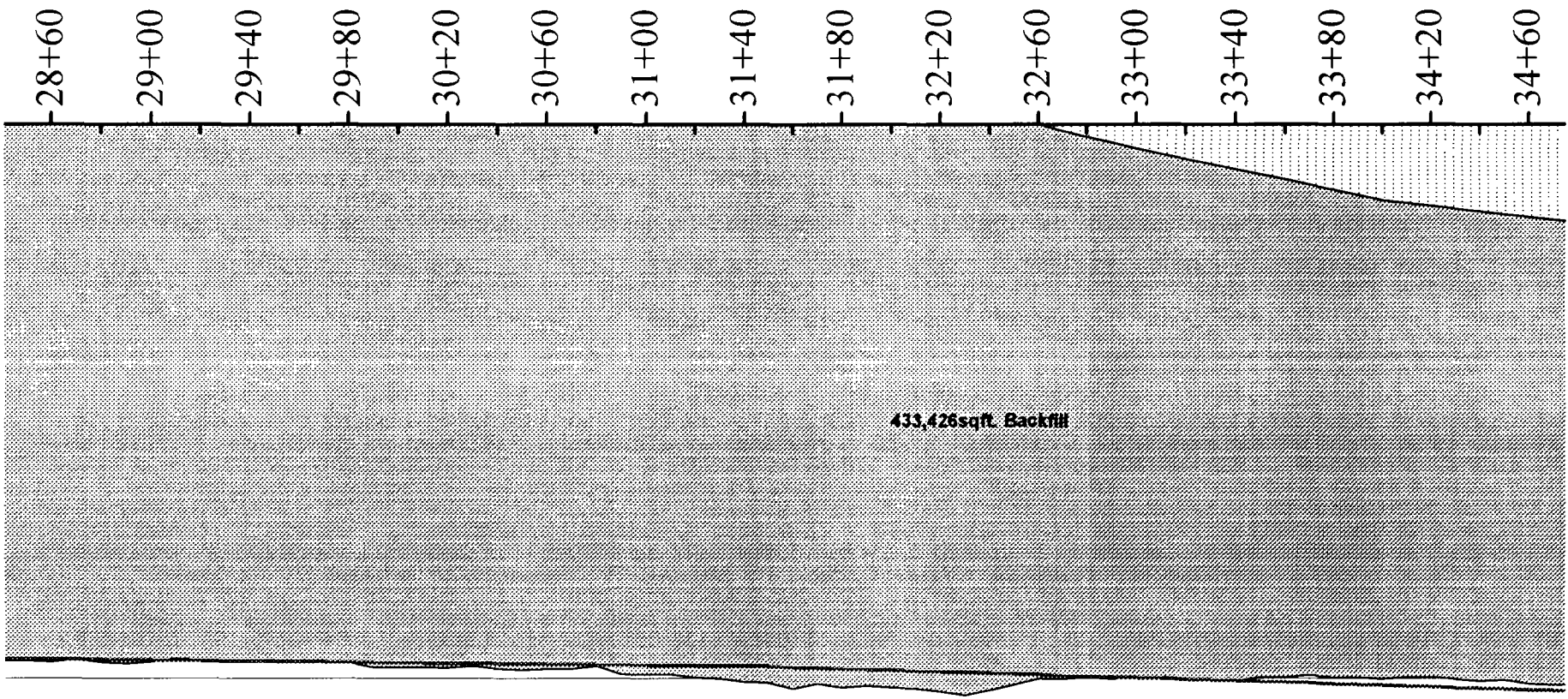


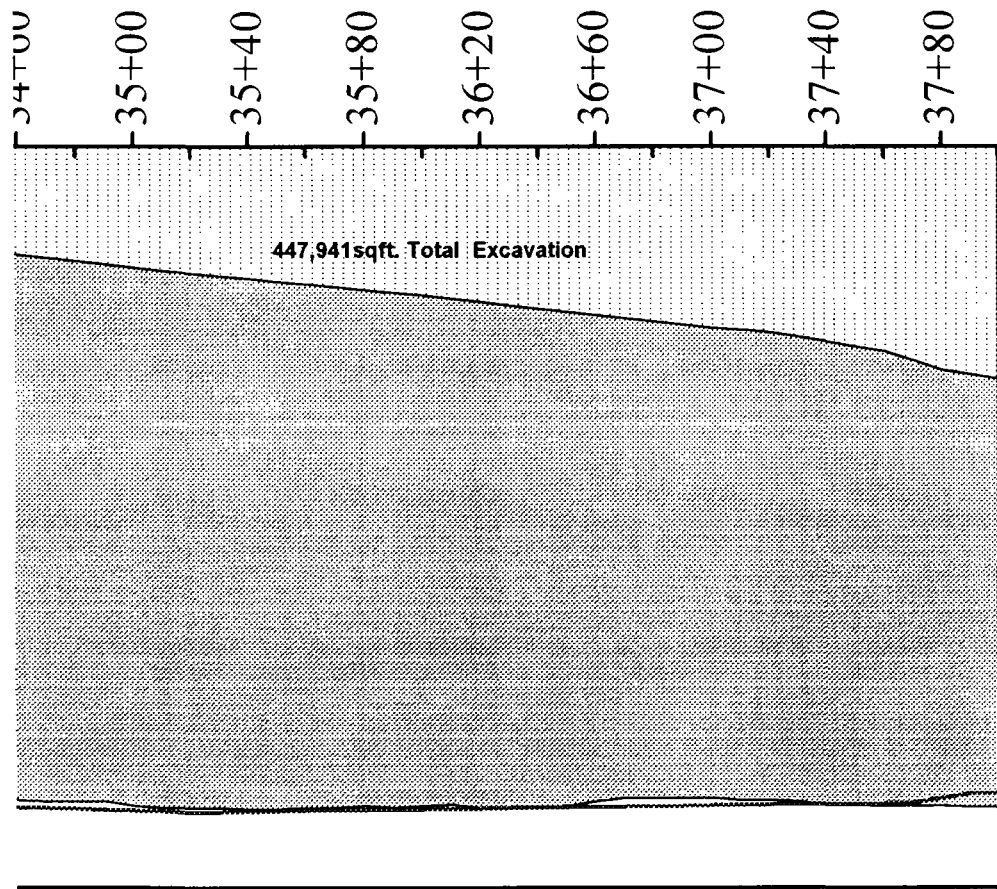
■ Backfill Area as of 10/29/04am ■ Excavation Area [

IS



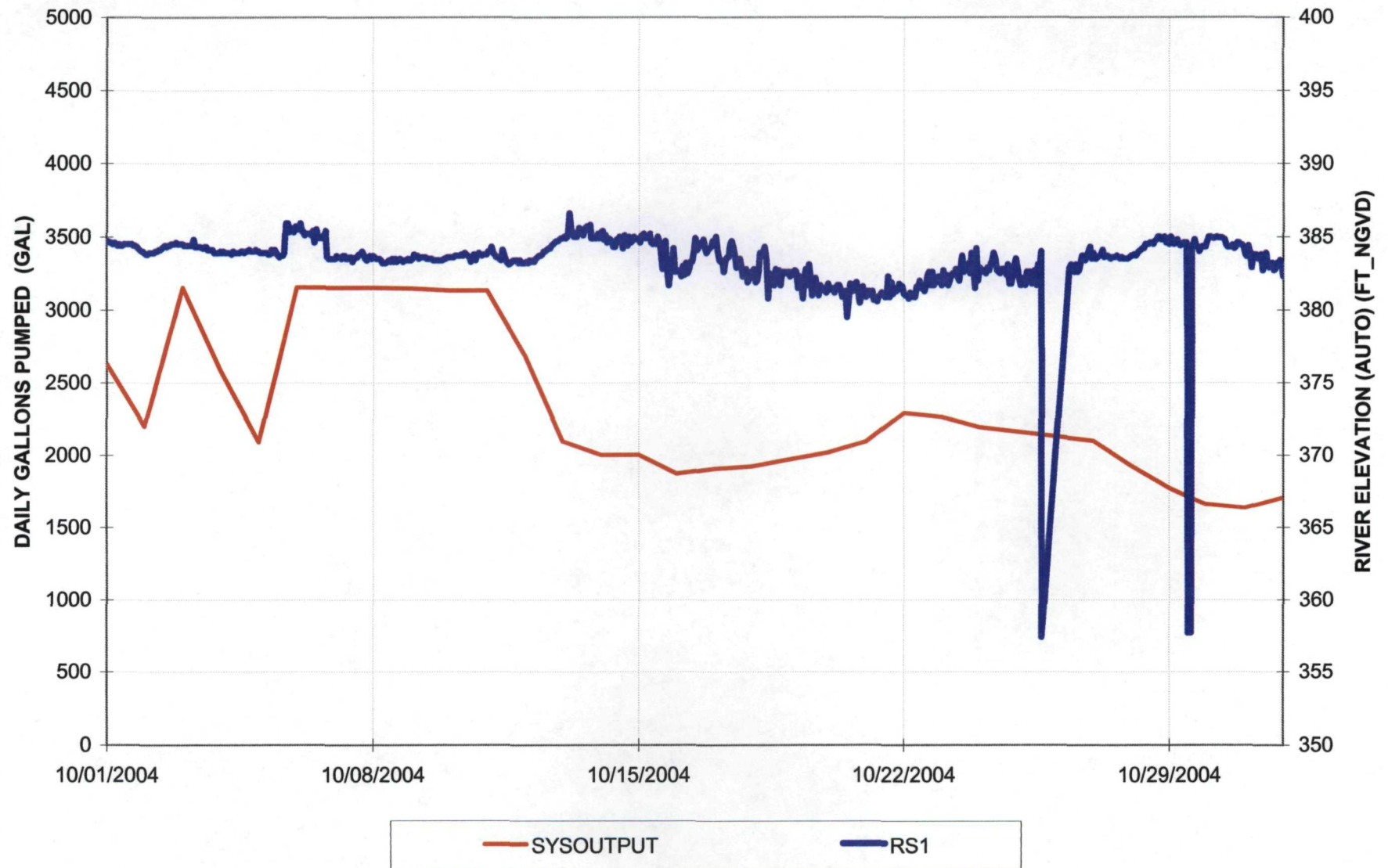
☐ Est. Bedrock Elevation



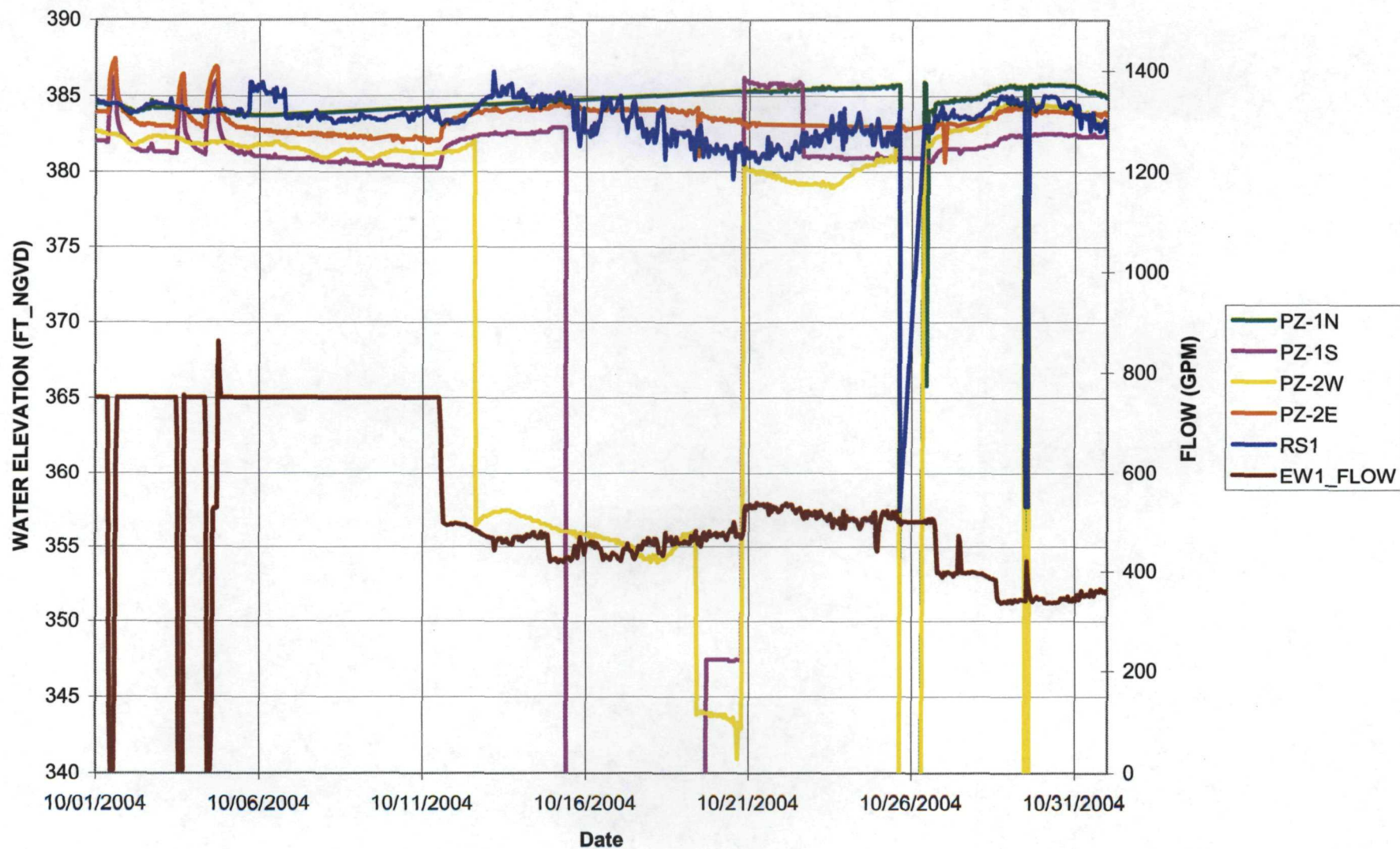


## **PUMPING**

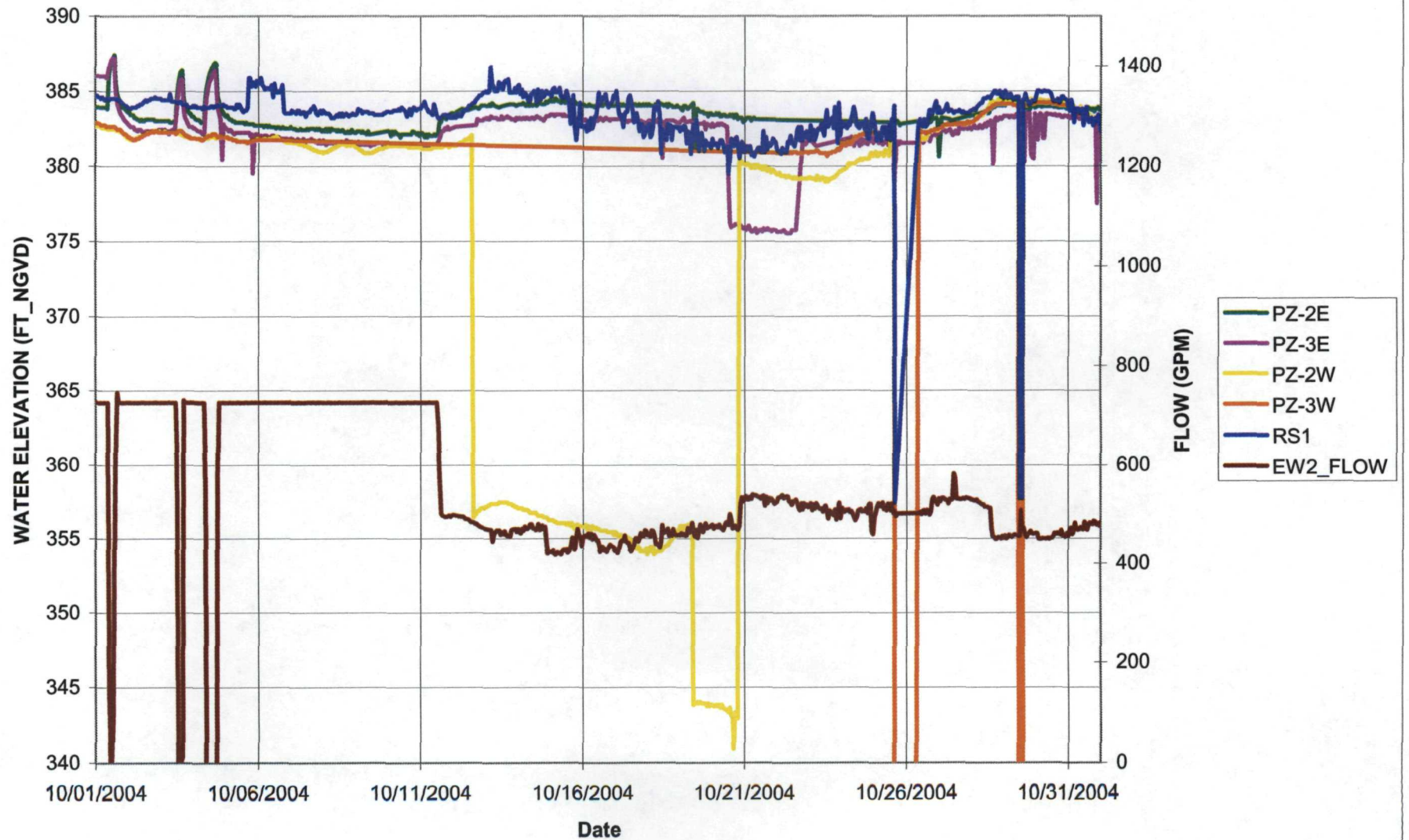
DAILY TOTAL GALLONS PUMPED W/ RIVER STAGE VS TIME



# WATER ELEVATION AND FLOW PLOT



# WATER ELEVATION AND FLOW PLOT



# WATER ELEVATION AND FLOW PLOT

